



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

March 24, 2005

U.S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTENTION: Ms. Angie Pennock
NCDOT Coordinator

SUBJECT: **Nationwide Permit 12 Application** and Section 401 Water Quality Certification for the proposed Upgrade of Existing Lovelady Road (SR1546), from Laurel Street (SR 1545) to Malcolm Boulevard (SR 1001) in Burke County; NCDOT Division 13. Federal Project No. STP-1546(8), State Project No. 8.2851501; TIP No. R-2824. \$200.00 Debit work order 8.2851501, WBS Element 34510.1.1

Dear Ms. Pennock:

The North Carolina Department of Transportation (NCDOT) proposes to upgrade Lovelady Road (SR 1546) from Laurel Street (SR 1545) to Malcolm Boulevard (SR 1001) in Burke County. The length of the proposed project is approximately 3.0 kilometers (1.9 miles). The project proposes to widen existing Lovelady Road to provide two 3.7 meter (12 foot) travel lanes and 1.2 meter (4 foot) paved shoulders within 2.4 meter (8 foot) usable shoulders. A combination of asymmetrical and symmetrical widening is proposed. Bridge No. 110, which carries Lovelady Road over Hoyle Creek, will be replaced with a new bridge. A temporary detour bridge will be constructed north of the existing bridge to maintain traffic on Lovelady Road during construction.

A Nationwide Permit 14 and 33 was applied for on August 20, 2004. NCDOT received the Approval of 401 Water Quality Certification on September 27, 2004. Both the 401 certification and the Nationwide 14 and 33 application are included with this application.

UTILITY IMPACTS

The purpose of this letter is to request a Nationwide 12 to allow us to relocate a water line. This utility project involves the relocation of a 300mm (12") ductile iron water line that is in conflict with bridge construction at Hoyle Creek. There will be no additional fill placed in the existing stream and no relocation of the stream associated with this utility work. The location for the waterline will be excavated and not directional bored due to bedrock. The temporary channel impacts as a result of this relocation will be 21.3 feet.

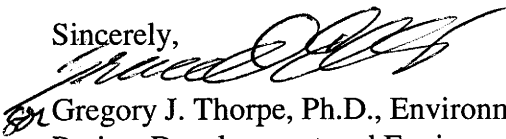
REGULATORY APPROVALS

Attached for your information is a copy of the Preconstruction Notification (PCN), Nationwide 14 and 33 permit application, 401 Water Quality Certification, and Utility Construction Plans for the project. Application is hereby made for Department of Army Section 404 Nationwide Permit 12 (Utility Construction) for the above described activities.

We also anticipate that comments from the North Carolina Wildlife Resources Commission (NCWRC) will be required prior to authorization by the USACE. By copy of this letter and attachment, NCDOT hereby requests NCWRC review. NCDOT request that NCWRC forward their comments to the USACE.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Mr. Chris Manley at cdmanley@dot.state.nc.us or (919) 715-1487.

Sincerely,



Gregory J. Thorpe, Ph.D., Environmental Management Director
Project Development and Environmental Analysis Branch

cc:

W/attachment

Mr. John Hennessy, Division of Water Quality
Ms. Marella Buncick, USFWS
Ms. Marla Chambers, NCWRC
Mr. David Chang, P.E., Hydraulics
Mr. Greg Perfetti, P.E., Structure Design
Mr. J.J. Swain, P.E. Division Engineer
Mr. Roger Bryan DEO

W/o attachment

Mr. Jay Bennett, P.E., Roadway Design
Mr. Omar Sultan, Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. Mark Staley, Roadside Environmental
Mr. David Franklin, USACE, Wilmington
Ms. Karen B. Taylor, PDEA Project Planning Engineer

UTILITY CONSTRUCTION

-DETOUR-

P/Std 11+25.034
 $\Delta = 20^{\circ} 24' 19.5" (RT)$
 $L = 62.325$
 $T = 31.496$
 $R = 175.000$

-Y6-

P/Sta. 10+54.023	P/Sta. 11+36.279
$\Delta = 9^{\circ} 03' 09.8''$ (RT)	$\Delta = 23^{\circ} 23' 50.1''$ (RT)
$L = 79.000$	$L = 20.418$
$T = 39.582$	$T = 10.353$
$R = 500.000$	$R = 500.000$

-Y6- PTSta 10+93.441

SE = 0.02
RO = SEE PLANS

CAROLINA MILLS, INC.

BEGIN CONSTRUCTION

- POTSta II + 00.180

Y6- PCSta. II + 25.926

-Y6- PTSta. 11 + 46.344

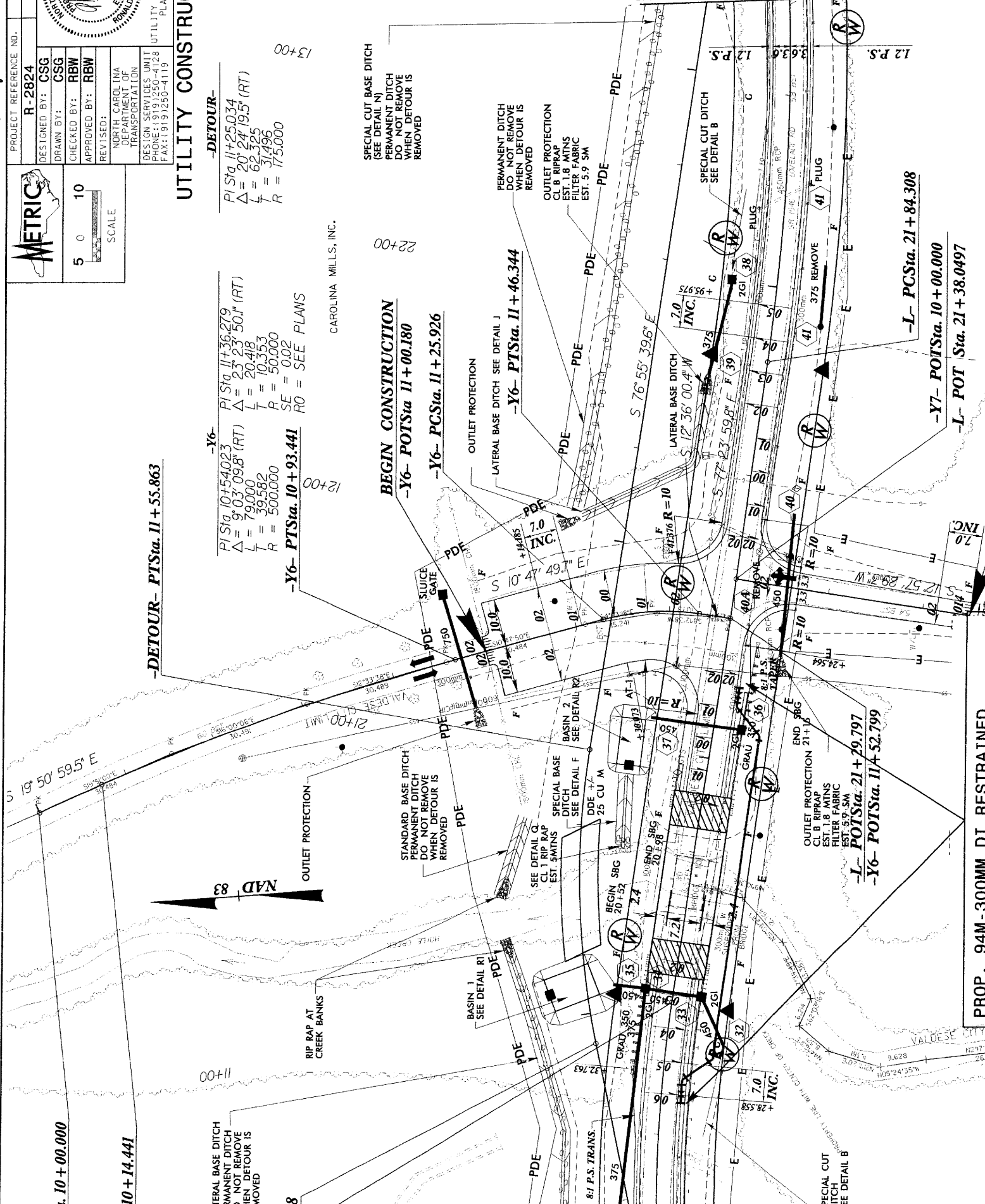
-L- PCSta. 21+84.308

V7 POTS: 10 1 00 000

$-1/-10131u.10+00.000$

PROP. 94M-300MM DT RESTRAINED

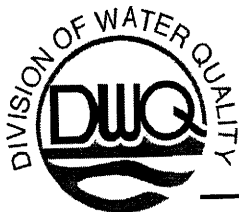
MATCH TO SHEET UC-6 STA 22+60.000



Supplement to Wet Lands Permit Summary of Jurisdictional Surface Water Impacts For R-2824

Site	Station Number	Plan View Permit Drawing	Fill in Surface Water (natural, ac)	Existing Stream Channel Impacted (ft) (Mitigation Required)	Existing Stream Channel Impacted (ft) (No Mitigation Required)	Temporary Channel Impact (ft)	Relocated Stream Channel (ft)	Proposed On-Site Stream Mitigation (ft)	Stream Channel Loss After On-Site Stream Mitigation (ft)	Proposed 2:1 Off-Site Compensatory Stream Mitigation (ft)
U-1	LINE -L- STA. 20+72.95 RT.	SHEET 3 OF 4	0	-	-	21.3 FT.	-	-	-	-

This revision involves the relocation of a 300mm (12") ductile iron water line that is in conflict with bridge construction at Hoyle Creek. There will be no additional fill placed in the existing stream and no relocation of the stream associated with this utility work. The site is identified as Site U-1.



September 21, 2004

Burke County
DWQ Project No. 04-1398
TIP No. R-2824

RECEIVED

SEP 27 2004

**DIVISION OF HIGHWAYS
PDEA-OFFICE OF NATURAL ENVIRONMENT**

APPROVAL of 401 Water Quality Certification

Dr. Gregory J. Thorpe, PhD., Manager
Planning and Environmental Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina, 27699-1548

Dear Dr. Thorpe:

You have our approval, in accordance with the attached conditions and those listed below, to place fill material in 27 linear feet of streams for the purpose of upgrading SR 1546 (Lovelady Road) from SR 1545 to SR 1001 in Burke County. The stream impacts are approved as presented in the table below.

Site	Station No.	Stream Name	Type	Stream Classification/ Index No.	Impacts (Linear Feet)
3	Station No. -L-20+77.76	Hoyle Creek	Perennial	Class WS-IV/ 11-45-(0.5)	10
4	Station No. -L-20+64.43	Hoyle Creek	Perennial	Class WS-IV/ 11-45-(0.5)	10
5	Station No. -L-20+55.99	Hoyle Creek	Perennial	Class WS-IV/ 11-45-(0.5)	7
Total					27

The project shall be constructed in accordance with your application dated August 20, 2004 (received August 23, 2004). After reviewing your application, we have decided that this fill is covered by General Water Quality Certification Numbers 3404 and 3403. This certification corresponds to the Nationwide Permits 14 and 23 issued by the Corps of Engineers. In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire with the accompanying 404 permit, unless otherwise specified in the Water Quality Certification.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed one acre, or of total impacts to streams (now or in the future) exceed 150 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed below and in the attached certification.


assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Any new or revised conditions shall be provided to NCDOT in writing, shall be provided to the United States Army Corps of Engineers for reference in any permit issued pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project.

- 13) A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
- 14) The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by orange fabric fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
- 15) There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities.

If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. This certification and its conditions are final and binding unless you ask for a hearing.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please contact Brian Wrenn at 919-733-5715 or John Hennessy at 919-733-5694.

Sincerely,



Alan W. Klimek, P.E.

Attachment

cc: Angie Pennock, Amy Corps of Engineers Asheville Regulatory Field Office
Mike Parker, DWQ Asheville Regional Office
File Copy
Central Files

DWQ Project No.: _____

County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1621 Mail Service Center, Raleigh, NC, 27699-1621. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

WQC #3403

GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER 23 (APPROVED CATEGORICAL EXCLUSIONS) AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)

This General Certification is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and wetland areas as described in 33 CFR 330 Appendix A (B) (23) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200. This Certification replaces Water Quality Certification Number 2670 issued on January 21, 1992, Certification Number 2734 issued on May 1 1993, Certification Number 3107 issued on February 11, 1997 and Water Quality Certification Number 3361 issued March 18, 2002. This WQC is rescinded when the Corps of Engineers re-authorizes Nationwide Permit 23 or when deemed appropriate by the Director of the DWQ.

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Conditions of Certification:

1. Proposed fill or substantial modification of wetlands or waters (including streams) under this General Certification requires notification to the Division of Water Quality. Two copies shall be submitted to DWQ at the time of notification in accordance with 15A NCAC 2H .0501(a). Written concurrence from DWQ is not required unless any standard conditions of this Certification cannot be met;
2. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard;
3. In accordance with 15A NCAC 2H .0506 (h) compensatory mitigation may be required for impacts to 150 linear feet or more of streams and/or one acre or more of wetlands. In addition, buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A determination of buffer, wetland and stream mitigation requirements shall be made for any Certification for this Nationwide Permit. The most current design and monitoring protocols from DWQ shall be followed and written plans submitted for DWQ approval as required in those protocols. When compensatory mitigation is required for a project, the mitigation plans must be approved by DWQ in writing before the impacts approved by the Certification occur. The mitigation plan must be implemented and/or constructed before any permanent building or structure on

WQC #3403

The Director of the North Carolina Division of Water Quality may require submission of a formal application for individual certification for any project in this category of activity that requires written concurrence under this certification, if it is determined that the project is likely to have a significant adverse effect upon water quality or degrade the waters so that existing uses of the wetland, stream or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: March 2003

DIVISION OF WATER QUALITY

By

Alan W. Klimek, P.E.

Director

WQC # 3403

WQC #3404

**GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR CORPS OF ENGINEERS
NATIONWIDE PERMIT NUMBER 14 (ROAD CROSSINGS) AND REGIONAL GENERAL
PERMIT 198200031 (WORK ASSOCIATED WITH BRIDGE CONSTRUCTION, MAINTENANCE
OR REPAIR CONDUCTED BY NCDOT OR OTHER GOVERNMENT AGENCIES)
AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)**

This General Certification is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and adjacent wetland areas or to wetland areas that are not a part of the surface tributary system to interstate waters or navigable waters of the United States (i.e., isolated wetlands) as described in 33 CFR 330 Appendix A (B) (14) of the Corps of Engineers regulations (Nationwide Permit No. 14 and Regional General Permit 198200031) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200. The category of activities shall include any fill activity for road crossings and is limited to fill less than one-third acre in tidal waters and less than one-half acre in non-tidal waters. This Certification replaces Water Quality Certification Number 2177 issued on November 5, 1987, Water Quality Certification Number 2666 issued on January 21, 1992, Water Quality Certification Number 2732 issued on May 1, 1992, Water Quality Certification Number 3103 issued on February 11, 1997, Water Quality Certification Number 3289 issued on June 1, 2000 and Water Quality Certification Number 3375 issued March 18, 2002. This WQC is rescinded when the Corps of Engineers re-authorizes Nationwide Permit 14 or Regional General Permit 198200031 or when deemed appropriate by the Director of DWQ.

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Conditions of Certification:

1. Enumerating and Reporting of Impacts:

- Streams - Impacts to streams as determined by the Division of Water Quality shall be measured as length of the centerline of the normal flow channel. Permanent and/or temporary stream impacts shall be enumerated on the entire project for all impacts regardless of which 404 Nationwide Permits are used. Stream relocations and stream bed and/or bank hardening are considered to be permanent stream impacts. Any activity that results in a loss of use of stream functions including but not limited to filling, relocating, flooding, dredging and complete shading shall be considered stream impacts. Enumeration of impacts to streams shall include streams enclosed by bottomless culverts, bottomless arches or other spanning structures when a 404 Permit is used anywhere in a project unless the entire structure (including construction impacts) spans the entire bed and both banks of the stream, is only used for a road, driveway or path crossing, and is not mitered to follow the stream pattern. Impacts for dam footprints and flooding will count toward the threshold for stream impacts, but flooding upstream of the dam will not (as long as no filling, excavation, relocation or other modification of the existing stream dimension, pattern or profile occurs) count towards mitigation requirements.
- Wetlands - Impacts to wetlands as determined by the Division of Water Quality shall be measured as area. Permanent and/or temporary wetland impacts shall be enumerated on the entire project for all impacts regardless of which 404 Nationwide Permits are used. Any activity that results in a loss of use of wetland functions including but not limited to filling, draining, and flooding shall be considered wetland impacts. Enumeration of impacts to wetlands shall include activities that change the hydrology of a wetland when a 404 Permit is used anywhere in a project.

WQC #3404

Alternative designs may be requested by the applicant and will be reviewed on a case-by-case basis by the Division of Water Quality.

Approval of stormwater management plans by the Division of Water Quality's other existing state stormwater programs including appropriate local programs are sufficient to satisfy this Condition as long as the stormwater management plans meet or exceed the design requirements specified in this condition. This condition applies unless more stringent requirements are in effect from other state water quality programs.

- Unless specified otherwise in the approval letter, the final, written stormwater management plan shall be approved in writing by the Division of Water Quality's Wetlands Unit before the impacts specified in this Certification occur.
 - The facilities must be designed to treat the runoff from the entire project, unless otherwise explicitly approved by the Division of Water Quality.
 - Also, before any permanent building or other structure is occupied at the subject site, the facilities (as approved by the Wetlands Unit) shall be constructed and operational, and the stormwater management plan (as approved by the Wetlands Unit) shall be implemented.
 - The structural stormwater practices as approved by the Wetlands Unit as well as drainage patterns must be maintained in perpetuity.
 - No changes to the structural stormwater practices shall be made without written authorization from the Division of Water Quality.
7. Compensatory stream mitigation shall be required at a 1:1 ratio for not only perennial but also intermittent stream impacts that require application to DWQ in watersheds classified as ORW, HQW, Tr, WS-I and WS-II unless the project is a linear, publicly-funded transportation project, which has a 150-foot per-stream impact allowance;
8. In accordance with North Carolina General Statute Section 143-215.3D(e), any application for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted through the Division of Coastal Management and will be the higher of the two fees;
9. In accordance with 15A NCAC 2H .0506 (h) compensatory mitigation may be required for impacts to 150 linear feet or more of streams and/or one acre or more of wetlands. For linear public transportation projects, impacts equal to or exceeding 150 feet per stream may require mitigation. In addition, buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A determination of buffer, wetland and stream mitigation requirements shall be made for any Certification for this Nationwide Permit. The most current design and monitoring protocols from DWQ shall be followed and written plans submitted for DWQ approval as required in those protocols. When compensatory mitigation is required for a project, the mitigation plans must be approved by DWQ in writing before the impacts approved by the Certification occur, unless otherwise specified in the approval letter. The mitigation plan must be implemented and/or constructed before any permanent building or structure on site is occupied. In the case of public road projects, the mitigation plan must be implemented before the road is opened to the travelling public. Projects may also be implemented once payment is made to a private mitigation bank or other in-lieu fee program, as specified in the written concurrence of 401 Certification for a project. Please note that if a stream relocation is conducted as a stream restoration as defined in *The Internal Technical Guide for Stream Work in North Carolina*, April 2001, the restored length can be used as compensatory mitigation for the impacts resulting from the relocation;

WQC #3404

Certifications. For road construction purposes, this Certification shall only be utilized from natural high ground to natural high ground;

18. When written concurrence is required, the applicant is required to use the most recent version of the Certification of Completion form to notify DWQ when all work included in the 401 Certification has been completed;
19. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Nationwide Permit 14 or Regional General Permit 198200031, whichever is sooner.

Non-compliance with or violation of the conditions herein set forth by a specific fill project may result in revocation of this Certification for the project and may also result in criminal and/or civil penalties.

The Director of the North Carolina Division of Water Quality may require submission of a formal application for Individual Certification for any project in this category of activity that requires written concurrence under this certification, if it is determined that the project is likely to have a significant adverse effect upon water quality or degrade the waters so that existing uses of the wetland or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: March 2003

DIVISION OF WATER QUALITY

By

Alan W. Klimek, P.E.

Director

WQC # 3404



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

August 20, 2004

U.S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTENTION: Ms. Angie Pennock
NCDOT Coordinator

SUBJECT: **Nationwide Permit Application 14 (Road Crossings) and 33 (Temporary Construction Access and Dewatering) and Section 401 Water Quality Certification for the proposed Upgrade of Existing Lovelady Road (SR1546), from Laurel Street (SR 1545) to Malcolm Boulevard (SR 1001) in Burke County; NCDOT Division 13. Federal Project No. STP-1546(8), State Project No. 8.2851501; TIP No. R-2824. \$200.00 Debit work order 8.2851501, WBS Element 34510.1.1**

Dear Ms. Pennock:

The North Carolina Department of Transportation (NCDOT) proposes to upgrade Lovelady Road (SR 1546) from Laurel Street (SR 1545) to Malcolm Boulevard (SR 1001) in Burke County. The length of the proposed project is approximately 3.0 kilometers (1.9 miles) (see Appendix 1, Site Map - Sheet 3 of 10). The project proposes to widen existing Lovelady Road to provide two 3.7 meter (12 foot) travel lanes and 1.2 meter (4 foot) paved shoulders within 2.4 meter (8 foot) usable shoulders. A combination of asymmetrical and symmetrical widening is proposed. Bridge No. 110, which carries Lovelady Road over Hoyle Creek, will be replaced with a new bridge. A temporary detour bridge will be constructed north of the existing bridge to maintain traffic on Lovelady Road during construction.

The purpose of the project is to improve safety on Lovelady Road between the towns of Valdese and Rutherford College in Burke County. The proposed project should reduce the potential for accidents since travel lanes will be wider, with paved shoulders and turning lanes at major intersections along Lovelady Road.

Summary of Impacts:

The existing bridge over Hoyle Creek is 15 meters (50 feet) long and will be replaced with a new bridge 24 meters (79 feet) long with a clear deck width of 12 meters (40 feet). The existing bridge consists of a timber and steel superstructure supported by vertical mount masonry. Removal of the existing bridge will not result in the placing of fill material in Hoyle Creek. In order to minimize disturbance to Hoyle Creek, a new single span steel girder bridge will be constructed and the new abutments will be offset at least 3 meters (10 feet) from the top of the stream banks. The replacement bridge will not have any headwalls or footings below the ordinary high water elevation. The replacement bridge begins at station number 20+60.881 and ends at 20+85.019 (see Appendix 1, Bridge Replacement and Detour Bridge, Sheet 4 of 10). In order to maintain traffic during construction, a temporary detour bridge will be constructed north of the existing bridge. This location avoids power and water lines located south of the existing bridge. The detour bridge will be 25 meters (82 feet) long and 7.8 meters (26 feet) wide. The interior bents of the detour bridge will be placed above the ordinary high water elevation to minimize disturbance to Hoyle Creek. The detour bridge will begin at station number 11+12.740 and end at 11+39.140. Construction of the replacement bridge and the detour bridge will result in 19.8 meters (66 feet) of temporary impacts to Hoyle Creek.

To avoid future erosion, class 1 rip-rap will be placed on the banks of Hoyle Creek for the construction of three base ditches (see Appendix 1, Bridge Replacement and Detour Bridge, Sheet 4 of 10). The rip-rap coverage will total 27 feet at 3 locations on the banks of Hoyle Creek.

Summary of Mitigation:

The project crosses Hoyle Creek, a perennial surface water. Complete avoidance of Hoyle Creek is not possible for the project. The impacts to this stream will be minimal and will not have a significant impact upon the quality of jurisdictional "Waters of the United States"; therefore, compensatory mitigation is not offered.

NEPA DOCUMENT STATUS

An Environmental Assessment (EA) was prepared by NCDOT in compliance with the National Environmental Policy Act. The EA was approved on September 23, 2002. A Finding of No Significant Impact (FONSI) was approved by the Federal Highway Administration (FHWA) on January 19, 2003. The EA explains the purpose and need for the project; provides a complete description of the alternatives considered; and characterizes the social, economic, and environmental effects. After the EA was approved, it was circulated to federal and local agencies. Copies of the EA and FONSI were provided to regulatory review agencies involved in the approval process. Additional copies will be provided upon request.

The upgrade of existing Lovelady Road from Laurel Street to Malcolm Boulevard in Burke County, TIP No. R-2824, is in compliance with 23 CFR Part 771.111(f) which lists the FHWA characteristics of independent utility of a project:

1. The project connects logical termini and is of sufficient length to address environmental matters on a broad scope;
2. The project is usable and is a reasonable expenditure, even if no additional transportation improvements are made in the area;
3. The project does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

RESOURCE STATUS

Wetland Delineations:

The presence of “Waters of the United States”, in the form of wetlands and surface waters were investigated within the referenced project limits. Potential wetland communities were investigated pursuant to the 1987 *Corps of Engineers Wetland Delineation Manual*. All jurisdictional “Waters of the United States” were verified by Steve Chapin of the U.S. Army Corps of Engineers (see Appendix 2, United States Army Corps of Engineers [USACE] letter dated December 15, 1995; Action ID. 199600142). Based on the jurisdictional wetland delineation performed for the project, there are no jurisdictional wetlands within the project limits. Therefore, no impacts to jurisdictional wetlands will be incurred by the proposed project.

Surface Waters:

The project crosses one perennial surface water, Hoyle Creek (North Carolina Department of Environment and Natural Resources [NCDENR] – Division of Water Quality [DWQ] Index No. 11-45-[0.5]), which is in a water supply watershed protection area classified as WS-IV. The creek is located in the Catawba DWQ Subbasin 030831 of the Upper Catawba River Basin 03050101.

Riparian Buffers:

The North Carolina temporary buffer protection rule, 15A NCAC 2B .0243, is applicable to a 50-foot wide riparian buffer directly adjacent to surface waters along the Catawba River mainstem below Lake James and along mainstem lakes in the Catawba River Basin. The referenced project crosses Hoyle Creek and is not directly adjacent to surface waters along the Catawba River mainstem. Therefore, the temporary buffer protection rule 15A NCAC 2B .0243 does not apply to the referenced project.

Floodplain:

Burke County participates in the National Flood Insurance Regular Program. Hoyle Creek is in the 100-year floodplain and floodway at the point where the project crosses the creek (Bridge No. 110), but is not included in a detailed flood study. The proposed widening will not have any significant adverse effect on the existing floodplain areas or associated flood hazard areas.

Wild and Scenic Rivers:

There are no wild or scenic rivers within the project area. In addition, the project does not cross a stream designated as a “trout waters” by the North Carolina Wildlife Resources Commission (NCWRC).

THREATENED AND ENDANGERED SPECIES

Plants and animals with federal classification of Endangered, Threatened, Proposed Endangered, and Proposed Threatened are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of January 29, 2003, the United States Fish and Wildlife Service (USFWS) listed six federally protected species for Burke County (see Table 1 below). Species characteristics, distribution, and habitat details along with survey and biological conclusion information were reported in the previously referenced EA.

Table 1. Federally Protected Species for Burke County

Scientific Name	Common Name	Status	Biological Conclusion
Vertebrate			
<i>Haliaeetus leucocephalus</i>	Bald eagle	T (PD)	No Effect
Vascular Plants			
<i>Geum radiatum</i>	Spreading avens	E	No Effect
<i>Hexastylis naniflora</i>	Dwarf-flowered heartleaf	T	May Affect – Not Likely to Adversely Affect
<i>Hudsonia montana</i>	Mountain-golden heather	T	No Effect
<i>Isotria medeoloides</i>	Small-whorled pogonia	T	No Effect
<i>Liatris helleri</i>	Heller’s blazing star	T	No Effect

Notes:

T (PD) Threatened but proposed for delisting.

T Threatened denotes any native or once native species that is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range, or one that is designated as a Threatened species pursuant to the Endangered Species Act.

E Endangered denotes a species in danger of extinction throughout all or a significant portion of its range.

Previously for the preparation of the EA, surveys were conducted for the dwarf-flowered heartleaf and the small-whorled pogonia. A Biological Conclusion of **Not Likely to Adversely Affect** was reached for the dwarf-flowered heartleaf. Two populations of the dwarf-flowered heartleaf occur near the project limits. Both populations occur near the intersection of Lovelady Road and Kathy Drive. These populations fall outside the project construction limits. Measures such as fencing and signs will be implemented to keep construction crews out of these areas. A Biological Conclusion of **Conditional No Effect** was reached for the small-whorled pogonia. Based on the survey results, the small-whorled pogonia does not occur in the project area. It is concluded that project construction will not impact this species.

An updated field survey was conducted on June 8, 2004, by Buck Engineering biologists (Greg Price and George Buchholz) for the dwarf-flowered heartleaf and the small-

whorled pogonia. Surveys for these species were conducted within the proposed right-of-way. The following provides an updated Biological Conclusion for each species.

***Hexastylis naniflora* (Dwarf-flowered heartleaf)**

Federal Status: Threatened

Animal family: Aristolochiaceae

Federally Listed: April 19, 1989

Biological Conclusion: May Affect – Not Likely to Adversely Affect

Flowering for the dwarf-flowered heartleaf occurs from March through May. A survey for this species was conducted on June 8, 2004, by Buck Engineering biologists (Greg Price and George Buchholz) by walking through the project limits and examining the habitat within the proposed right-of-way. The forested areas within the project limits exhibit habitat characteristics that support dwarf-flowered heartleaf. The two populations of the dwarf-flowered heartleaf identified in previous surveys were located. No additional populations of dwarf-flowered heartleaf or other *Hexastylis* species were identified within project limits. Both identified populations occur near the project limits within proximity to the intersection of Lovelady Road and Kathy Drive. Field measurements indicate that the nearest individual dwarf-flowered heartleaf occurs outside the project limits. Therefore, no dwarf-flowered heartleaf specimens will be directly impacted as a result of project construction. In addition, it is not anticipated that the project will alter the existing land uses or increase accessibility to adjacent parcels since the improvements associated with the proposed project will not increase capacity, level of service, or change existing access patterns. Consequently, it is not likely that the dwarf-flowered heartleaf populations found along existing Lovelady Road will be indirectly impacted from development as a result of this project. Therefore, a Biological Conclusion of **May Affect – Not Likely to Adversely Affect** is rendered. NCDOT will implement a strategy of fencing and constructing signs along the project construction limits directly adjacent to the dwarf-flowered heartleaf populations to keep construction crews out of these areas.

***Isotria medeoloides* (Small-whorled pogonia)**

Federal Status: Threatened

Animal family: Orchidaceae

Federally Listed: September 10, 1982

Biological Conclusion: No Effect

Flowering for the small-whorled pogonia occurs from May through June. A survey for this species was conducted on June 8, 2004 by Buck Engineering biologists (Greg Price and George Buchholz) by walking through the project limits and examining the habitat within the proposed right-of-way. The forested areas within the project limits exhibit habitat characteristics that could support small-whorled pogonia. The results of the field survey conducted on June 8, 2004 indicate that no small-whorled pogonia species were observed within the project limits. Therefore, a Biological Conclusion of **No Effect** is rendered.

CULTURAL RESOURCES

Architectural Historic Resources

A survey of historic architectural resources located within the area of potential effect (APE) was conducted. There were 15 properties over 50 years of age that were identified in the survey. There are no properties listed on either the National Register of Historic Places or the State Study List located within the APE for this project. The Arthur T. Abernethy House and Study located on Malcolm Boulevard are considered eligible for the National Register. The FHWA and the State Historic Preservation Office (SHPO) concurred with these findings (see Appendix 2, North Carolina Department of Cultural Resources (NCDCCR) letter dated April 29, 1998; 98-E-4220-0646). There will be no adverse effect on the subject property since construction activities will not occur within the boundaries of the historic property.

Archaeological Resources

One recorded archaeological site was identified during an archaeological survey conducted for the proposed project. The archaeological site was determined to be not eligible for the National Register. The FHWA and the SHPO concurred with these findings (see Appendix 2, North Carolina Department of Cultural Resources letter dated February 11, 1999; ER99-8083).

MITIGATION OPTIONS

The USACE has adopted, through the Council of Environmental Quality (CEQ), a wetland mitigation policy that embraces the concept of “no net loss of wetlands” and sequencing. The purpose of this policy is to restore and maintain the chemical, biological, and physical integrity of the “Waters of the United States.” Mitigation of wetland and surface water impacts has been defined by the CEQ to include: avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time and compensating for impacts (40 CFR 1508.20). Executive Order 11990 (Protection of Wetlands) emphasize protection of the functions and values provided by wetlands. These directives require that new construction in wetlands be avoided as much as possible and that all-practicable measures be taken to minimize or mitigate impacts to wetlands.

Avoidance:

Complete avoidance of Hoyle Creek is not possible for the project. The construction of a new bridge over Hoyle Creek will have some temporary impacts to the stream. An on-site detour is proposed to the north of the existing bridge to maintain traffic during the construction of the new bridge. There will be no disturbances to aquatic life movements associated with project construction.

Minimization:

The construction of this project has minimized the extent of the built-upon area by using the existing alignment for the widening. The proposed replacement structure over Hoyle Creek will not have piers, bents, or footings in the stream and will not have deck drains. NCDOT will implement best management practices for the protection of surface waters in accordance with the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" during design and construction phases of the project. The contractor will be advised that wet concrete will not be allowed to come into contact with the stream during construction. Hazardous spill catch basins will be constructed as part of the project. A vegetated upland buffer for deck drainage is not possible due to the location of the hazardous spill catch basins. However, stormwater run-off from the bridge will drain into the hazardous spill catch basins before entering the creek. The contractor will be required to keep interior bents of the detour bridge above the normal water level of the stream to minimize disturbance to Hoyle Creek.

Compensation:

Due to the minimal impacts to Hoyle Creek associated with this project, compensatory mitigation is not offered.

FHWA STEP DOWN COMPLIANCE

All compensatory mitigation must be in compliance with 23 CFR Part 77.9 "Mitigation of Impacts" that describes the actions that should be followed to qualify for federal-aid highway funding. This process is known as the FHWA "Step Down" procedures:

1. Consideration must be given to mitigation within the right-of-way and should include the enhancement of existing wetlands and the creation of new wetlands in the highway median, borrow pit areas, interchange areas and along the roadside.
2. Where mitigation within the right-of-way does not fully offset wetland losses, compensatory mitigation may be conducted outside the right-of-way including enhancement, creation, and preservation.

Project impacts to Hoyle Creek have been deemed minimal and all practicable measures avoiding and minimizing impacts have been examined and/or implemented. Therefore, compensatory mitigation is not offered.

REGULATORY APPROVALS

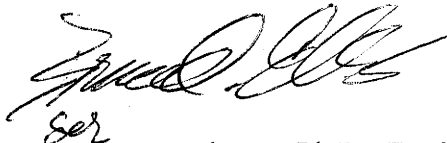
Attached for your information is a copy of the Preconstruction Notification (PCN), roadway design plans, and permit drawings for the project. Application is hereby made for Department of Army Section 404 Nationwide Permit 14 (Road Crossings) and 33 (Temporary Construction Access and Dewatering) for the above described activities. In compliance with Section 143-215.3D (e) of the NCAC we will provide \$200.00 to act as payment for processing the Section 401 permit application previously noted in this

application (see Subject line). We are providing seven copies of this application to the NCDENR - DWQ, for their review.

We also anticipate that comments from the North Carolina Wildlife Recourses Commission (NCWRC) will be required prior to authorization by the USACE. By copy of this letter and attachment, NCDOT hereby requests NCWRC review. NCDOT request that NCWRC forward their comments to the USACE.

Thank you for you assistance with this project. If you have any questions or need additional information, please contact Mr. Chris Manley at cdmanley@dot.state.nc.us or (919) 715-1487.

Sincerely,



ser
Gregory J. Thorpe, Ph.D., Environmental Management Director
Project Development and Environmental Analysis Branch

cc:

W/attachment

Mr. John Hennessy, Division of Water Quality (7 copies)
Ms. Marella Buncick, USFWS
Ms. Marla Chambers, NCWRC
Mr. David Chang, P.E., Hydraulics
Mr. Greg Perfetti, P.E., Structure Design
Mr. J.J. Swain, P.E. Division Engineer
Mr. Roger Bryan DEO

W/o attachment

Mr. Jay Bennett, P.E., Roadway Design
Mr. Omar Sultan, Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. Mark Staley, Roadside Environmental
Mr. David Franklin, USACE, Wilmington
Ms. Karen B. Taylor, PDEA Project Planning Engineer

Office Use Only:

Form Version May 2002

USACE Action ID No. _____ DWQ No. _____

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

I. Processing

1. Check all of the approval(s) requested for this project:

<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Riparian or Watershed Buffer Rules
<input type="checkbox"/> Section 10 Permit	<input type="checkbox"/> Isolated Wetland Permit from DWQ
<input checked="" type="checkbox"/> 401 Water Quality Certification	
2. Nationwide, Regional or General Permit Number(s) Requested: 14 (Road Crossings) & 33 (Temporary Construction Access and Dewatering)
3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here: ☐
4. If payment into the North Carolina Wetlands Restoration Program (NCWRP) is proposed for mitigation of impacts (verify availability with NCWRP prior to submittal of PCN), complete section VIII and check here: ☐
5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here: ☐

II. Applicant Information

1. Owner/Applicant Information
Name: Mr. Gregory J. Thorpe, Ph.D., Environmental Management Director
Mailing Address: North Carolina Department of Transportation,
Project Development and Environmental Analysis Branch
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Telephone Number: (919) 733-3141 Fax Number: (919) 733-9794
E-mail Address: gthorpe@dot.state.nc.us
2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)
Name: _____
Company Affiliation: _____
Mailing Address: _____

Telephone Number: _____ Fax Number: _____

E-mail Address: _____

III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: Upgrade of Existing Lovelady Road (SR1546), from Laurel Street (SR 1545) to Malcolm Boulevard (SR 1001) in Burke County
2. T.I.P. Project Number or State Project Number (NCDOT Only): R-2824
3. Property Identification Number (Tax PIN): _____
4. Location
County: Burke Nearest Town: Valdese and Rutherford College
Subdivision name (include phase/lot number): _____
Directions to site (include road numbers, landmarks, etc.): (see Appendix 1, Vicinity Map - Sheet 1 of 10)
5. Site coordinates, if available (UTM or Lat/Long): Lat 35°45'42"; Long 81°32'58"
(Note – If project is linear, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
6. Property size (acres): 3.04 kilometers (1.86 miles) along existing Lovelady Road (SR1546)
7. Nearest body of water (stream/river/sound/ocean/lake): Hoyle Creek
8. River Basin: Catawba DWQ Subbasin 030831 of the Upper Catawba River Basin 03050101
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at <http://h2o.enr.state.nc.us/admin/maps/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: The project is located in Burke County and is within the municipalities of Valdese and Rutherford College. Burke County is located in the western

North Carolina foothills of the Blue Ridge Mountains. According to the North Carolina Functional Classification System, Lovelady Road (SR 1546) functions as an urban collector. Lovelady Road is designated as a major thoroughfare in the Valdese-Rutherford College-Connelly Springs Thoroughfare Plan. Existing land uses along Lovelady Road are primarily residential, consisting of single family homes.

10. Describe the overall project in detail, including the type of equipment to be used: The existing bridge over Hoyle Creek is 15 meters (50 feet) long and will be replaced with a new bridge 24 meters (79 feet) in length with a clear deck width of 12 meters (40 feet). The replacement bridge begins at station number 20+60.881 and ends at 20+85.019 (see Appendix 1, Bridge Replacement and Detour Bridge, Sheet 4 of 10). The existing bridge consists of a timber and steel superstructure supported by vertical mount masonry. A new single span steel girder bridge will be constructed and will be offset from the top of the stream banks. The detour bridge will be 25 meters (82 feet) long and 7.8 meters (26 feet) wide. The detour bridge will begin at station number 11+12.740 and end at 11+39.140. Three base ditches with Class 1 rip-rap curtains will be constructed and discharge into Hoyle Creek.
11. Explain the purpose of the proposed work: The purpose of the project is to improve safety on Lovelady Road between the towns of Valdese and Rutherford College in Burke County. The proposed project should reduce the potential for accidents since travel lanes will be wider, paved shoulders will be installed, and turning lanes will be provided at major intersections along Lovelady Road.

IV. Prior Project History

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules.

As part of the referenced project's Natural Resource Technical Report (February 1999), in preparation of an Environmental Assessment (September, 2002) a jurisdictional determination was prepared by the US Army Corp of Engineers (Action ID Number 199600142; December 15, 1995).

V. Future Project Plans

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.

No future permit requests are anticipated for this project.

VI. Proposed Impacts to Waters of the United States/Waters of the State

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. The applicant must also provide justification for these impacts in Section VII below. All proposed impacts, permanent and temporary, must be listed herein, and must be clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) must be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

1. Provide a written description of the proposed impacts:

Temporary Impacts: Removal of the existing bridge will not result in placing fill in Hoyle Creek. In order to minimize disturbance to Hoyle Creek, a new single-span steel girder bridge will be constructed and the new abutments will be offset at least 3 meters (10 feet) from the top of the stream banks. The new bridge will not have any headwalls or footings below the ordinary high water elevation. In order to maintain traffic during construction, a temporary detour bridge will be constructed north of the existing bridge to avoid power and water lines located south of the existing bridge. The interior bents of the detour bridge will be placed above the ordinary high water elevation to minimize disturbance to Hoyle Creek.

Permanent Impacts: Class 1 rip-rap will be placed at the embankments of Hoyle Creek for the construction of three base ditches.

2. Individually list wetland impacts below: Not Applicable

Wetland Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Located within 100-year Floodplain** (yes/no)	Distance to Nearest Stream (linear feet)	Type of Wetland***

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

** 100-Year floodplains are identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM), or FEMA-approved local floodplain maps. Maps are available through the FEMA Map Service Center at 1-800-358-9616, or online at <http://www.fema.gov>.

*** List a wetland type that best describes wetland to be impacted (e.g., freshwater/saltwater marsh, forested wetland, beaver pond, Carolina Bay, bog, etc.) Indicate if wetland is isolated (determination of isolation to be made by USACE only).

List the total acreage (estimated) of all existing wetlands on the property: Not Applicable

Total area of wetland impact proposed: Not Applicable

3. Individually list all intermittent and perennial stream impacts below:

Stream Impact Site Number (indicate on map)	Type of Impact*	Length of Impact (linear feet)	Stream Name**	Average Width of Stream Before Impact	Perennial or Intermittent? (please specify)
1 Station 20+60.881 to 20+85.019	Temporary – Bridge Replacement	12 meters (40 feet)	Hoyle Creek	7.5 meters (25 feet)	Perennial
2 Station 11+12.740 to 11+39.140	Temporary – Detour Bridge	7.8 meters (26 feet)	Hoyle Creek	7.5 meters (25 feet)	Perennial
3 Station 20+77.76 ±	Permanent – rip-rap	3.09 meters (10 feet)	Hoyle Creek	7.5 meters (25 feet)	Perennial
4 Station 20+64.43 ±	Permanent– rip-rap	3.2 meters (10 feet)	Hoyle Creek	7.5 meters (25 feet)	Perennial
5 Station 20+55.99 ±	Permanent– rip-rap	2.12 meters (7 feet)	Hoyle Creek	7.5 meters (25 feet)	Perennial

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: culverts and associated rip-rap, dams (separately list impacts due to both structure and flooding), relocation (include linear feet before and after, and net loss/gain), stabilization activities (cement wall, rip-rap, crib wall, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included.

** Stream names can be found on USGS topographic maps. If a stream has no name, list as UT (unnamed tributary) to the nearest downstream named stream into which it flows. USGS maps are available through the USGS at 1-800-358-9616, or online at www.usgs.gov. Several internet sites also allow direct download and printing of USGS maps (e.g., www.topozone.com, www.mapquest.com, etc.).

Cumulative impacts (linear distance in feet) to all streams on site:

19.8 meters (66 feet) Temporary Impacts, 9.2 meters (27 feet) Permanent Impacts

4. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.) below: Not Applicable

Open Water Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Name of Waterbody (if applicable)	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: fill, excavation, dredging, flooding, drainage, bulkheads, etc.

5. Pond Creation: Not Applicable

If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.

Pond to be created in (check all that apply): ☐ uplands ☐ stream ☐ wetlands

Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.): _____

Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.): _____
Size of watershed draining to pond: _____ Expected pond surface area: _____

VII. Impact Justification (Avoidance and Minimization)

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts.

Avoidance:

Complete avoidance of Hoyle Creek is not possible for the project. Construction of a new bridge over Hoyle Creek will have some temporary impacts to the stream. An on-site detour is proposed to the north of the existing bridge to maintain traffic during the construction of the new bridge. There will be no disturbances to aquatic life movements associated with project construction.

Minimization:

Utilizing the existing alignment for bridge replacement has minimized the extent of built-upon area. The contractor will be required to keep interior bents of the detour bridge above the normal water level of the stream to minimize disturbance to Hoyle Creek. The proposed replacement structure over Hoyle Creek will not have piers, bents, or footings in the stream and will not have deck drains, further minimizing impacts. NCDOT will implement best management practices for the protection of surface waters in accordance with the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" during design and construction phases of the project. The contractor will be advised that wet concrete will not be allowed to come into contact with the stream during construction. Hazardous spill catch basins will be constructed as part of the project. A vegetated upland buffer for deck drainage is not possible due to the location of the hazardous spill catch basins. However, stormwater run-off from the bridge will drain into the hazardous spill catch basins before entering the creek.

VIII. Mitigation

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on March 9, 2000, mitigation will be required when necessary to ensure that adverse effects to the aquatic environment are minimal. Factors

including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCWRP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ's Draft Technical Guide for Stream Work in North Carolina, available at <http://h2o.enr.state.nc.us/ncwetlands/strmgide.html>.

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.

Project impacts to Hoyle Creek have been deemed minimal and all practicable measures avoiding and minimizing impacts have been examined and/or implemented. Therefore, compensatory mitigation is not offered.

2. Mitigation may also be made by payment into the North Carolina Wetlands Restoration Program (NCWRP). Please note it is the applicant's responsibility to contact the NCWRP at (919) 733-5208 to determine availability and to request written approval of mitigation prior to submittal of a PCN. For additional information regarding the application process for the NCWRP, check the NCWRP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCWRP is proposed, please check the appropriate box on page three and provide the following information: Not Applicable

Amount of stream mitigation requested (linear feet): _____

Amount of buffer mitigation requested (square feet): _____

Amount of Riparian wetland mitigation requested (acres): _____

Amount of Non-riparian wetland mitigation requested (acres): _____

Amount of Coastal wetland mitigation requested (acres): _____

IX. Environmental Documentation (required by DWQ)

Does the project involve an expenditure of public (federal/state) funds or the use of public (federal/state) land?

Yes ☒ No ☐

If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)?
 Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation.

Yes ☒ No ☐

If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter.

Yes ☒ No ☐

X. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify _____)?
 Yes ☐ No ☒ If you answered "yes", provide the following information:

Identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact (square feet)	Multiplier	Required Mitigation
1		3	
2		1.5	
Total			

* Zone 1 extends out 30 feet perpendicular from near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Conservation Easement, Riparian Buffer Restoration / Enhancement, Preservation or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0260.

XI. Stormwater (required by DWQ)

Describe impervious acreage (both existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property.

NCDOT will implement best management practices for the protection of surface waters in accordance with the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" during design and construction phases of the project. The contractor will be advised that wet concrete will not be allowed to come into contact with the stream during construction. The replacement bridge will not have deck drains. Hazardous spill catch basins will be constructed as part of the project. A vegetated upland buffer for deck drainage is not possible due to the location of the hazardous spill catch basins. However, stormwater run-off from the bridge will drain into the hazardous spill catch basins before entering the creek.

XII. Sewage Disposal (required by DWQ)

Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.

Not Applicable

XIII. Violations (required by DWQ)

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?

Yes ☐

No ☒

Is this an after-the-fact permit application?

Yes ☐

No ☒

XIV. Other Circumstances (Optional):

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

NCDOT will implement a strategy of fencing and constructing signs along the project construction limits directly adjacent to the dwarf-flowered heartleaf (*Hexastylis naniflora*-Threatened) population to keep construction crews out of these areas. It is anticipated that this will not interfere with project work schedules.


Applicant/Agent's Signature

8/24/04
Date

(Agent's signature is valid only if an authorization letter from the applicant is provided.)